Annex C: Training and Leader Development

Department of Defense Transformation Planning Guidance states the Army must transform not only the capabilities at our disposal, but also the very way we think, train, and fight. To do this, the Army is reexamining and challenging institutional assumptions, paradigms, and procedures so that it can better serve the Nation. The end result will be an improved campaign-quality Army with Joint and expeditionary capabilities.

The Army's training and leadership development core competencies are twofold: train and equip Soldiers and grow leaders; and provide relevant and ready land power capability to combatant commanders. The following imperatives will guide how the Army organizes, trains, and equips to ensure mastery of the full range of military operations by:

- Implementing transformation initiatives that will improve capabilities for homeland defense and stability operations
- Improving proficiencies against irregular challenges
- Achieving Army Modular Force capabilities to dominate in complex terrain
- Improving Army capabilities for battle command, Joint fires capability, and Joint logistics efforts to better our Nation's strategic responsiveness and global force posture

TRAINING AND LEADER DEVELOPMENT

Leader Development is a deliberate, continuous, sequential, and progressive process grounded in Army Values to grow Soldiers and civilians into competent and confident leaders. Closing the gap between training, Leader Development, and battlefield performance has always proved a challenge, and in an era of complex national security requirements, the Army's strategic responsibilities now encompass a wider range of missions that present greater challenges to our leaders. These full-spectrum operations include combined arms and Joint, Interagency, Intergovernmental, and Multinational considerations.

The focus of Leader Development is on the future to prepare Soldiers and civilians for increasing levels of responsibility. Leader Development is accomplished through a lifelong learning process that takes place through operational experience in units, in Army schools and training centers, and self development.

The Army Training and Leader Development Model (see Figure C-1). Three core domains—operational, institutional, and self-development—shape critical learning experiences throughout a Soldier's or civilian's career. These domains function within an Army culture bound by stated values,

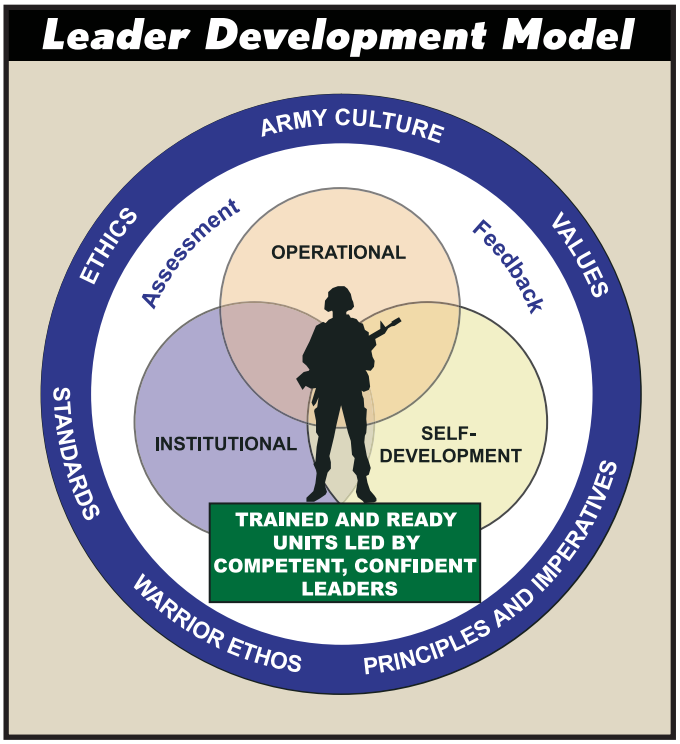

Figure C-1 Training & Leader Development Model

standards, ethics, and the Warrior Ethos. Focused on the Soldier, these domains interact to provide feedback and assessment from various sources and methods, including counseling and mentoring, to maximize technical and tactical competence and, ultimately, warfighting readiness. Each domain has specific, measurable actions that must occur to develop competent leaders.

In the operational domain, Leader Development is accomplished in units and organizations via individual and collective training, participation in key training exercises or at Combat Training Centers, during full-spectrum operations, and through mentoring. In this domain, Leader Development requires commitment by both individual and chain of command to support self-development, and fill gaps in leader skills, knowledge, and attributes as identified through individual and chain of command assessment and feedback.

The institutional domain provides standards-based training and education from individual through collective training, instilling current and future leaders with the Warrior Ethos and common doctrinal foundation. Institutional Training focuses on educating (the "how") and training (the "what") Soldiers, civilians, and leaders. It includes individual, unit, and Joint Service schools, and advanced civilian and military education.

The **self-development domain** is based on a feedback-driven process of activities and learning that contributes to professional competence, organizational effectiveness, and personal development to enhance potential to succeed in progressively complex, higher-level responsibilities. Assessment and feedback inform the individual of areas of personal strengths and areas requiring improvement. Self-development is a team effort requiring a motivated individual with support or guidance from superiors and peers. While knowledge and perspective increase with age, experience, Institutional Training, operational assignments, and goal-oriented self-development actions can greatly accelerate and broaden skills and knowledge.

One mandate of Army transformation is to ensure Army leaders understand the link between training and Leader Development. Linking these two fundamental obligations commits the Army to training Soldiers and civilians while developing them into leaders. For example, the institutional Army, which includes schools, Combat Training Centers, the civilian education system, and professional military education programs, trains Soldiers, civilians, and leaders to take their places in Army units by teaching all of the Army's doctrine and Tactics, Techniques, and Procedures.

Other examples are operational deployments and major training opportunities such as CTC Exportable Training Capability, Joint exercises, and Mission Readiness Exercises. These training venues are designed to hone common Warrior Tasks and Battle Drills to properly prepare Soldiers and leaders for the Common Operating Environment. Capturing lessons learned and key operational insights from the field serves as the mechanism for continually reviewing WTBD to ensure training is relevant, rigorous, and realistic to enhance unit readiness and produce bold, innovative, and adaptive leaders.

ARMY LEADERS FOR THE 21ST CENTURY

The Secretary of the Army directed a review of training, education, and assignment of leaders (military and civilian) to determine how best to develop future leaders. An AL21 task force assessed existing Army policies and programs and recommended changes and revisions that address both individual self-development activities and those intended to occur during assignments, formal schooling, and training. The review confirmed the officer leader development process required a paradigm shift to address shortfalls in specific skills needed to prepare them for full-spectrum operations. Non-commissioned officer development must change by developing a comprehensive learning strategy and a lifelong learning approach to accommodate an expanded leadership role.

Because civilian Leader Development is significantly less established than the military's, it requires new initiatives to give the Civilian Corps a unique identity. These initiatives will complement DoD Human Capital Strategy and the National Security Personnel System to achieve competency-based occupational planning, performance-based management, and enhanced opportunities for personal and professional growth.

Detailed recommendations have been integrated into the *Army Campaign Plan*. Officers will expand their competency to broaden non-kinetic expertise to a full-spectrum culture, and focus on addressing critical gaps pertaining to mental agility, cultural awareness, governance, enterprise management/ strategic leadership. For NCOs, a study will be conducted to determine how the Army can maximize their utilization, while retaining the NCO Pentathlete. This will be accomplished via a learning strategy, as well as integrated and synchronized distributed learning under a virtual "Warrior University." Civilians have been mandated to establish an identity, make an investment in Civilian Leader Development, and establish a Civilian Corps Development System and Civilian Corps Management System.

OPERATIONAL EXPERIENCE

Assignments that promote confidence, creativity, and critical thinking complement Institutional Training and aid in growing leaders. Leaders who operate in a broader framework tend to adapt to processes and solve problems more easily. Experiential learning through rotational and developmental assignments, deployments, and crossovers into other functions will enhance an Army leader's knowledge base.

Army Leaders for the 21st Century will produce multi-skilled, professionally educated warriors. "The Pentathlete" (Figure C-2) will be the confident, competent decision-maker who can overcome the challenges the Army will face in the future defense of the Nation. Through the proper balance of unit experiences, self-development, training, and education at all levels, the Army will grow leaders who are decisive, innovative, adaptive, culturally astute, and effective communicators. This balance is dynamic and continually adjusted based on future force needs. In addition to being experts in the art and science of the profession of arms and demonstrating character and integrity in everything they do, Army leaders must be astute at building teams, boldly confronting uncertainty, and solving complex problems. Above all, future senior leaders must be strategic and creative thinkers dedicated to lifelong learning. Only then will we develop leaders who as skilled in leadership as they are in governance, statesmanship, and diplomacy.

ADAPTIVE TRAINING WHEREVER, WHENEVER

The future training environment is a network-focused Army Training System that can plan, coordinate, deliver and assess the full spectrum of training capabilities to meet the complex and rapidly changing operational and technological environment. Soldiers, leaders, battle staffs, and units must be able refocus training as their mission is refined or shifts through the Army Force Generation cycle. In the future, training functionality will operate within the Army's high-speed, high-capacity backbone communications network providing training support wherever a unit is located. Integrated network capabilities will enable units to plan, prepare, train, rehearse, and execute simultaneously. Training capabilities will provide reach back access to information resources at any level and for any function.

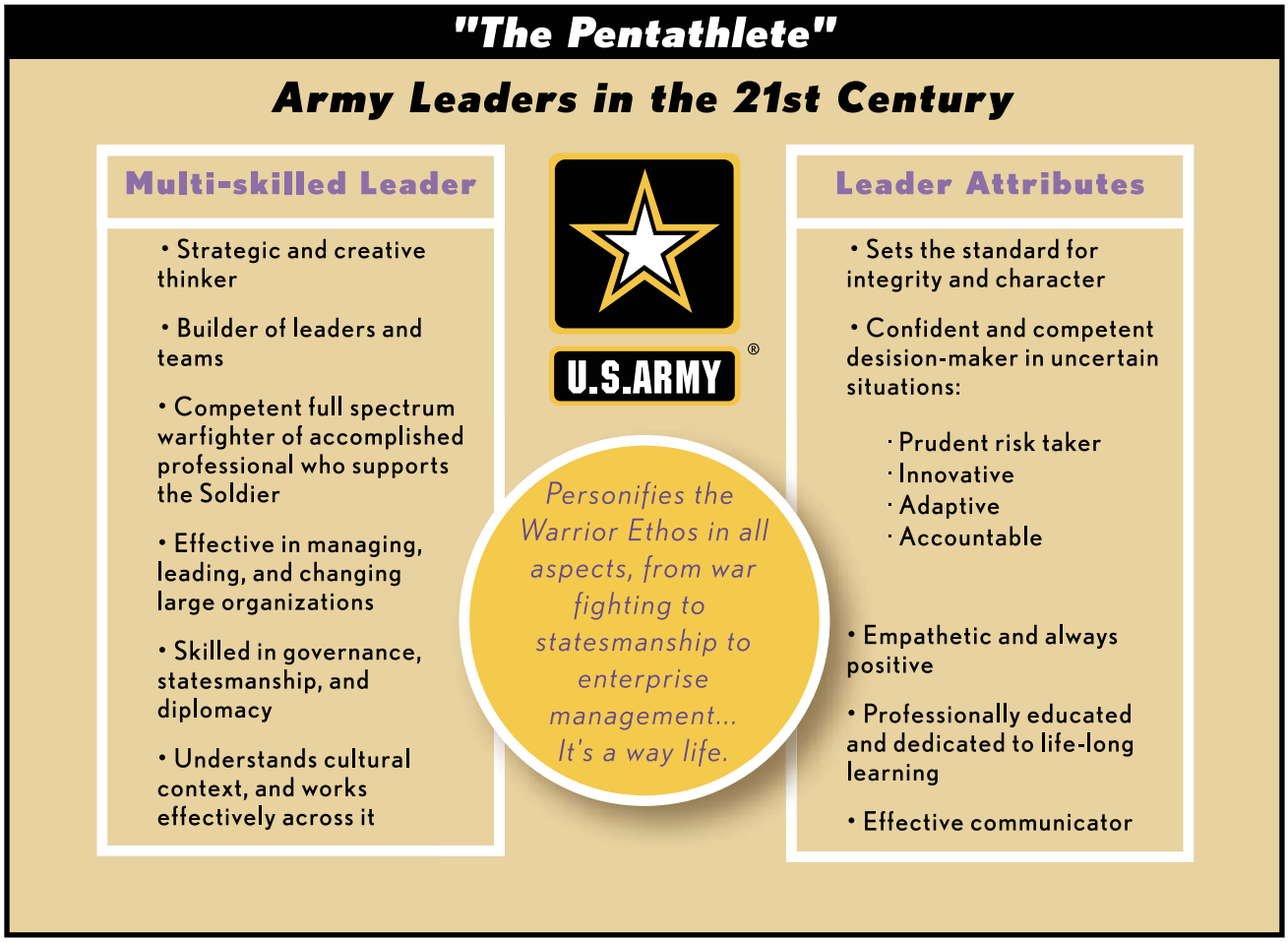

Figure C-2 Army Leaders in the 21st Century

Even after training functionality is fully embedded in equipment and weapon systems, the Army Training System must be responsive to the needs of operational commanders by providing required training products that address operational concerns, performance assistance that helps Soldiers meet mission demands, and analysis/dissemination of lessons learned. This requires establishment of a designed capability to connect the operational environment to all Army training capabilities.

The Army Training System must continue to enhance its capability to support units that have received a directed mission, are preparing to deploy, or have deployed. The training support system must fully service the directed mission at the unit's home station and mobilization sites; rehearsal location; and Theater Reception, Staging, and Onward Movement and Integration locations; and where the unit is employed. Additionally, unit leaders must have:

1. Access to centers of excellence for doctrine, Tactics, Techniques and Procedures, lessons learned;
2. User-friendly training management tools that reduce training planning time and allows tracking of all unit training requirements and performance evaluations;
3. Training support products that enable units to practice mission essential tasks with realistic interaction with other friendly team members and against opposing forces;
4. A challenging mission rehearsal exercise before deploying when circumstances allow;

5. Ability to plan and rehearse missions assigned in theater; and
6. Job aids to enable Soldiers to perform difficult or important tasks to high standard.

HOME STATION TRAINING

The bulk of the time available for units to train occurs while units are at home station installations, Army National Guard armories, U.S. Army Reserve centers, or local/regional training areas. Home station is where individual skills and collective proficiency are honed, and where unit readiness and cohesion are formed. Home station training must be optimized because units have a finite amount of time before they must be ready to deploy. The Army's goal is to provide units the ability to train at home station on the core missions they were doctrinally designed to accomplish across the full spectrum of military operations in a Common Operating Environment with Joint team members; and then refocus training on a directed mission, when assigned. To accomplish these critical training events and tasks, home station training must be supported with an adequate mix of training enablers—ground/air operating funds, Live-Virtual-Constructive training capability, aids, devices, simulations, instrumentation, ammunition, live-fire ranges, and maneuver training areas.

JOINT, INTERAGENCY, INTERGOVERNMENTAL, MULTINATIONAL TRAINING

The Common Operating Environment requires seamless integration of JIIM operating elements. Accordingly, the Army is ensuring its training capability is nested within the Joint National Training Capability, which makes this context available. Furthermore, Army Leader Development and training programs require the JIIM context to be fully effective.

Deploying units must have the opportunity to practice their directed mission just as they will perform it, within a JIIM context. Units must have the capability to routinely incorporate into mission-focused training events consideration of JIIM planning, command and control and execution. Home station and deployed training capabilities should provide Soldiers, leaders, and battle staffs the means to conduct training in a JIIM environment. JIIM context must become the norm during training at the Army's Combat Training Centers. The end state is Soldiers, leaders, and units fully prepared to effectively and efficiently function within the JIIM team wherever required by coalition operations.

COMBAT TRAINING CENTER (CTC) PROGRAM

The Combat Training Center program includes the Battle Command Training Program, Joint Multinational Readiness Center, Joint Readiness Training Center, and National Training Center, and integrates training with the Joint National Training Capability.

Beginning FY08, the CTC Program will develop an Exportable Training Capability that will support ARFORGEN. While ETC won't achieve operational capability until FY10, expanding reach of CTCs through an ETC is required to support the increased number of modular brigades preparing to deploy. ETC will be manned with analysts and an Opposing Force cadre, and equipped with an instrumentation and after action review capability that can be used either at home station (Power Projection Platform) for Active Component, or at an Army National Guard training area (Power Generation Platform) for Guard units. ETC will provide a training experience that approaches the fidelity of an actual rotation at a CTC.

Combat Training Center training rotations remain the Army's capstone training events for battalions, BCTs, divisions, corps, and echelons above corps. Their focus remains unit readiness and Leader Development, and their primary purpose is to develop ready units and self-aware, adaptive leaders. CTCs accomplish this by integrating the contemporary operational environment and JIIM context into all training. This environment can include simultaneous, noncontiguous, and

continuous operations in a distributed, global, Live-Virtural-Constructive training capability within a JIIM context in operations against a freethinking and adaptable Opposing Force. The battlefield is arrayed to maximize stress on digital Army Battle Command Systems. Complex terrain will be a part of each rotation.

Special Operations Forces will be appropriately integrated throughout rotations, as will realistic Combat Service Support training to stress logistics structures. Role players as civilians on the battlefield replicate the human dimension of the Common Operating Environment. Deployment tasks remain an important focus of each rotation. Instrumented feedback for both formal and informal After Action Reviews will enhance the quality of training and facilitate sharing of lessons learned to unit leaders, home station, institutions and deployed units.

Institutional Training. Centers and schools will continue to develop leaders through NCO, warrant officer, and officer education programs. Additionally, in times of crisis and need for expansion, centers and schools must be expandable to support the mobilization requirements of the Army.

Initial Entry Training Re-design. This initiative involves a comprehensive look at creating efficiencies in the training base to produce additional manpower by redesigning the conduct of Initial Entry Training. These initiatives will produce trained and ready Soldiers at the right place and the right time to effectively integrate into their first unit of assignment. To achieve this more dynamic throughput, the Initial Entry Training community is testing several initiatives to determine feasibility. The end state for this re-design is Soldiers spending less time in Initial Entry Training, and arriving at operational units sooner.

Continuous review of Warrior Tasks and Battle Drills. A process is also underway to periodically review this training to ensure the initial military training community (officer and enlisted) is properly focused. This process, conducted every six months, helps ensure training across the Army remains dynamic, relevant, and in step with Common Operating Environment.

Changing Reserve Officer Training Corps. U.S. Army Cadet Command is reviewing the four pillars of the ROTC program—Recruit, Retain, Develop, and Commission—to best meet demands of the future force. Essential to this comprehensive assessment is identification of the appropriate knowledge, skills, and attributes required of future leaders so remain innovative, adaptive, culturally astute and effective communicators.

Professional Military Education is transforming to ensure it supports operational force requirements. The focus of PME has broadened to address increased educational requirements established by three key areas: The *National Defense Strategy's* four emerging security challenges (irregular, traditional, catastrophic, disruptive), and establishment of Stability Operations as a core Army mission with priority comparable to combat operations, and lessons learned from the Common Operating Environment. The Army is piloting a new learning model that combines guided experiential learning, fast-tracking of high-ability students, Saturday instruction, and greater use of distributed learning. Modules on warfighting and irregular warfare will educate leaders on doctrine, TTPs for decision making, and employment of military units in combined arms operations in all emerging security challenges. These modules will be tactically focused, hands-on, and execution-oriented, culminating with an exercise that stresses and develops the leaders' ability to rapidly make decisions and apply the elements of combat power throughout full-spectrum operations.

The Army School System is responsible for the vast majority of Information Technology within the Army, and provides training to Soldiers in both the Active and Reserve Component. ATS Courseware is an on-going initiative to satisfy needs to expand training technologies. Reserve Component courses are converting to to ensure critical tasks are taught to the same standard regardless of the

school, including Military Occupational Specialty qualification, Army leadership, functional, professional development, and civilian courses. The course's structure and media ensure standardized training by all Soldiers on critical tasks. A major outcome of this conversion will allow an Active Component Soldier to take Army courses at a local armory if they are not available at his home station.

OFFICER EDUCATION SYSTEM

Dramatic changes have been implemented across the Officer Education System to meet the needs of the Army and realities of Common Operating Environment. All programs of instruction are being adapted to ensure officer education continues to be current and relevant, and is developing a framework to implement a world-class educations system with distinct components for warrant officers, company and field grade commissioned officers in both the Active and Reserve Component. The Army will ultimately combine warrant officer training into common officer training, when common officer skills are taught.

Basic Officer Leader Course. The Army's transition to Basic Officer Leaders Course has significantly changed initial military training for officers. It transforms pre-commissioning, pre-appointment, and the Officer Basic Course to better prepare second lieutenants and warrant officers for their first unit. The objective is to develop technically competent, confident, and adaptable platoon leaders grounded in leadership and field craft, regardless of branch, who embody the Army Values and the Warrior Ethos and who are physically and mentally strong. BOLC capitalizes on experience-based training, logically structured to build on lessons learned from the COE. Training is designed to be progressive and sequential across the three phases of BOLC.

- **Phase I**
  (Pre-commissioning/Pre-appointment).
  Traditional commissioning and appointment sources are revising their curricula to train basic Soldier and leader skills commonly performed by all lieutenants and warrant officers. Each officer candidate, warrant officer candidate, or cadet, regardless of commissioning or appointment source, will be trained using the same standards and a common core task list.

- **Phase II**
  (Experiential Leader Training).
  Upon graduation and commissioning, lieutenants attend the second, branch-immaterial phase of BOLC. This course is physically and mentally challenging, with more than 80 percent of the training conducted hands-on in a tactical or field environment. The platoon is the focal point for all activities, as each student is evaluated in a series of mission-focused leadership positions under varying conditions and situations designed to develop adaptive and agile combat leaders. Officers depart this training with greater confidence, an increased appreciation for all branches of the combined arms, and a clearer picture of their personal strengths and weaknesses. BOLC II is now fully implemented with the capacity to run four simultaneous companies at each of the two locations (Fort Benning and Fort Sill). Efforts are underway to integrate new WO1s into BOLC II by FY09.

- **Phase III**
  (Branch Specific Training).
  After gaining confidence in their abilities to lead small units, officers are prepared to learn specialized branch-specific skills, doctrine, tactics, and techniques. Upon graduation, officers proceed to their first unit or attend additional assignment-specific training (e.g., airborne, Ranger, language school, etc.). Curriculum refinement for Phase III is completed for most officer branches and is on track for full implementation in FY07. BOLC III is geared toward branch-specific, technical training, however there are some common core threads taught during this phase to further develop the tactical to technical linkage.

Captains' Professional Military Education has been redesigned in coordination with all branch schools, directives from higher authorities, and feedback from numerous survey results which identified those training requirements necessary for company-grade operations. Based on this extensive coordination, the new Common Core of Skills, Knowledge, and Abilities has been integrated into all captain's career courses, both Active and Reserve Component. Captains' education now will more fully prepare the professional company grade officer for success during warfighting and stability operations in the COE.

Intermediate Level Education is designed to prepare majors for full-spectrum operations in a Joint, interagency, international, and multinational environment. Beginning with Year Group '94 officers, ILE will provide all majors in the Army Competitive Category a quality, tailored, resident ILE. Officers are grounded in warfighting doctrine through an approximately four-month common core course taught by certified Command and General Staff College instructors at Fort Leavenworth or one of several satellite campuses known as Course Locations. They also attend a qualification course in their branch or area of functional specialization (Functional Area). Officers continuing to serve in their basic branch attend the follow-on Advanced Operations and Warfighting Course for six additional months at Fort Leavenworth. Functional Area officers attend tailored resident training according to the unique requirements of their respective areas of specialization.

Pre-Command Course. Commanders selected for battalion and brigade command attend PCC prior to assuming their assignments. The designees attend a one-week course conducted at Fort Leavenworth that includes command team training for the commander, command sergeants major, and their respective spouses.

Army War College is the Senior Service College for the Army. It prepares officers and civilians for senior leadership in the Army, Defense, and related departments and agencies though a POI in national security affairs, with emphasis on the development and employment of military forces in land warfare. Graduates are granted masters degrees in strategic studies.

Warrant Officer Advanced Course (Branch-specific Training) is for CW2s and CW3s and focuses on tactical and technical skills, and leadership at company, battalion, and above. The 15 proponents that administer WOAC must conduct a formal needs analysis to validate existing training and education systems, determine future requirements, and identify opportunities to integrate WOAC with captain's PME.

Warrant Officer Staff Course is a four-week resident course focused on staff officer and leadership skills at battalion and above. WOSC educates CW3s and CW4s in adaptive leadership, cultural awareness, COE, communication, staff skills, critical/creative problem solving and decision making to support the full spectrum of Army operations.

Warrant Officer Senior Staff Course is the warrant officer's capstone course PME, providing the master-level officer with broad Army-level perspective required for assignment to CW5 positions as technical, functional, and branch systems integrators and trainers at the tactical, operational, and limited strategic levels in the JIIM. WOSSC focuses on "how the Army runs," Army policies, programs and special items of interest.

NCO EDUCATION SYSTEM (NCOES)

NCOES has undergone a radical transformation to better meet the needs of our NCOs. The Army has begun redesigning and implementing the Basic and Advanced NCO courses (BNCOC & ANCOC). The Army has also developed an NCOES Transformation Strategy for both Active and Reserve Component NCOs that consists of a Life Long Learning Model that educates leaders to conduct full-spectrum operations, serve in a wide range of assignments at above grade positions (Train Ahead) and develops NCOs into multi-skilled leaders. All these steps are being taken to support the needs of operational units during the reset phase of ARFORGEN.

Warrior Leader Course. The Primary Leadership Development Course has been renamed WLC. The effect of this change is not only reflected in the name, but also in the course. WLC for corporal/E-4, is unrecognizable from the old PLDC, and its curriculum has been revitalized to meet the needs of Soldiers of the future. In keeping with a recommendation to adopt a train-ahead philosophy, the Army has granted permission for exceptional E-3s to attend WLC. The course incorporates recent lessons learned by incorporating first-hand experience from the battlefield. Every student receives detailed squad-level combat leader training. Evaluation is centered on their ability to demonstrate troop-leading procedures in current threat-based scenarios.

Basic Noncommissioned Officer Course. At the E-5/E-5 (Promotable) level, the Army continues to develop leaders who are masters of their MOS, as well as expert trainers and training managers. At this level, we continue to focus on leading and training inside the platoon formation and providing initial exposure to core staff skills needed inside the battalion formation. As part of Noncommissioned Officer Education System Transformation, BNCOC and ANCOC training proponents have reduced their resident courses with the goal of no more than eight weeks. Shorter courses will focus on critical branch warfighting tasks.

ANCOC. Educating the platoon sergeant at the E-6/7 level, the focus expands from MOS-specific training to battlefield operating system. The focus becomes leading and training inside the company formation and expanding staff skills to those needed inside the brigade formation. The officer-NCO relationship receives more attention at this level.

The Battle Staff Course curriculum ensures the Battle Staff NCO is capable of battalion- and brigade-level operational skills, combined with performing in a Joint or Combined Force land command in multiple staff environments.

First Sergeant Course curriculum provides the Army a first sergeant capable of conducting company-level operations in multiple environments. The first sergeant will have the ability to function in the contemporary operating environment providing input for the coordination of combat, Combat Support, and Combat Service Support efforts at echelons above company.

MSG/SGM/CSM Education. The capstone of NCOES is the Sergeants Major Course, which is transforming to meet the senior NCO professional development requirements of the AMF by fostering leadership skills and providing mastery of training management and conceptual learning skills. Additionally, the CSM Course is a five-day, branch immaterial course taught in conjunction with the PCC at Fort Leavenworth that prepares newly appointed CSMs for assignments as senior enlisted advisors to the commander.

CIVILIAN EDUCATION SYSTEM (CES)

CES provides professional Distributed Learning and resident instruction to the ACC. The four new progressive and sequential courses (Foundation, Basic, Intermediate, and Advanced) were created at the Army Management Staff College to assure "Pentathlete focus" and unified Leader Development.

Action Officer Development Course is required for interns before completion of the intern program. The Supervisory Development Course provides supervisors or managers with civilian personnel administration skills in human resources management and techniques. Manager Development Course assists supervisors with basic management skills and is recommended for all civilians in supervisory or managerial positions before attending resident Civilian Education System courses.

The Foundation Course is designed for all employees to gain an understanding and appreciation of Army values and customs; serve professionally as a member of the Department of the Army; and acquire foundation competencies for LD. FC is available to all members of the ACC through distributed learning and required for all interns, team leaders, supervisors, and managers.

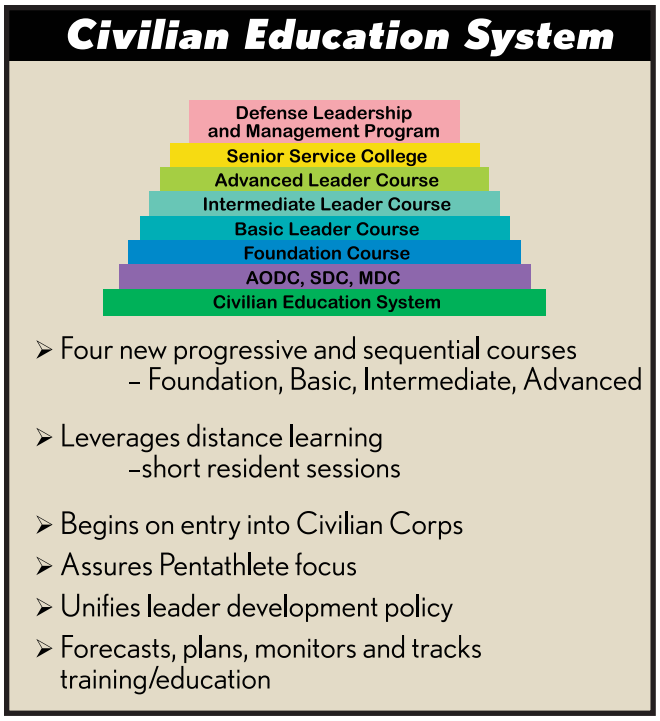

Figure C-3 Civilian Education System

The Basic Course is designed to develop leaders who understand and apply basic leadership skills to effectively lead and care for small teams. Training focuses on basic education in leadership and counseling fundamentals, interpersonal skills, and self-awareness. BC consists of a dL phase and a two-week resident phase in a university setting. BC is required for all team leaders and supervisors.

The Intermediate Course is designed for civilians in supervisory or managerial positions and program managers. The training and developmental exercises focus on mission planning, team building, establishing command climate, and resource stewardship.

The Advanced Course focuses on strategic thinking and assessment, change management, developing a cohesive organization, managing a diverse workplace, and resource management.

Senior Service College is at the apex of a civilian's LD education, preparing them for positions of greatest responsibility. SSC attendance is available by competitive process for civilians who require an understanding of complex policy and operational challenges and increased knowledge of the national security mission. Upon graduation from SSC, civilians are assigned to positions of greater responsibility in another organization, which enhances their leader developmental experience.

Defense Leadership and Management Program is the premier DoD executive development program for senior Defense civilians and a key component of the DoD succession planning strategy. DLAMP provides the means to mature a cadre of highly capable senior civilian leaders with a Joint perspective on managing the department's workforce and programs.

Functional Training encompasses a wide range of general and highly specialized courses and schools that provide specific education and training designed to prepare individuals to perform with proficiency in selected battle staff and leadership positions, including those often associated with a specific area of expertise.

The Army Learning Management System provides powerful technology that permits the Army to manage individual training in traditional institutional settings as well as in distributed forums. The system supports selection, scheduling, delivery, execution, and results for Army individual training. As of December 2006, there were over 160,000 registered ALMS users who can access training anywhere they have access to the Internet. ALMS allows Army leadership at senior and unit levels, training officers, and NCOs to manage their Soldiers' careers from one location, saving time and money, and providing them a powerful tool to better manage their Soldiers' training. Soldiers also will be able to track their own training history. ALMS is designed to touch every Soldier and civilian in the Army, and will be the single source for Soldiers and their leaders to see training deficiencies, and to be able to collectively address and direct Soldiers to take the exact training they need to correct those deficiencies.

THE ARMY'S DISTRIBUTED LEARNING PROGRAMS

The Army's Distributed Learning Program's mission is to improve training, enhance force readiness, and support Army transformation. This is accomplished by exploiting current and emerging technologies, facilitating development of self-aware and adaptive leaders through lifelong learning, and delivery of the right training and education to the right Soldier and leader at the right time and place. As we move toward the ARFORGEN model, dL is a primary means of maintaining operational readiness. Distributed Learning enables higher levels of unit readiness and organizational performance, standardizes training across the Army, facilitates flow of Soldier competency data to leaders, and improves career planning capabilities.

The Army's Distributed Learning Program is an approved Army program that integrates Active Component with Reserve Component. TADLP infrastructure provides learners access to individual computers, video teletraining technology, and other technologies needed for learning in a dL environment. TADLP digital training facilities and Army National Guard Distributed Learning classrooms have been fielded throughout the Army to provide Soldiers capability to access dL instruction. The Deployed Digital Training Campus, scheduled for full-rate production in FY08 with one DDTC per deployed brigade, will provide the Army a deployable digital training platform. DDTC's primary role will be to provide operationally deployed units access to dL and simulations-based training. In a secondary role, it will provide a flexible means to meet CONUS- and OCONUS-based redeployed unit surge training requirements.

Selected courses are redesigned to provide dL training phases, modules, and lessons, allowing students to participate in synchronous and asynchronous interactive multimedia training. Selection of courses for dL redesign is based on Army readiness requirements, priorities of COE, and high-level interest of senior Army leaders. Under the current plan, over 525 courses will be redesigned for dL delivery by FY13. The Army's Distributed Learning Program currently is moving to task-based dL products that will facilitate quicker production, higher relevance to Common Operating Environment, and much broader reusability in the Army and throughout DoD.

Classroom XXI Program provides training modernization that enhances TRADOC training facilities at Army resident schools. This program improves training provided through schools and allows broadcast of training to remote The Army's Distributed Learning Program DTFs. Classrom XXI Program also establishes Army standards for instructional technology capabilities that are Soldier-centered and provides design and architectural standards for classrooms. Classroom XXI Program is scheduled for completion by the end of FY14, with 270 classrooms to be fielded.

Self-Development. While Army leader education and training programs provide a foundation for competence, all leaders are responsible to extend their capabilities by applying the fundamental knowledge and skills through practice and reflection during exercises, operational experiences, and performance of routine duties. Learning activities and self-awareness beyond the schoolhouse and training site are instrumental to enhance knowledge and skill performance for current and future leadership responsibilities.

Through proper dynamic balance of unit experiences, training, and education at all levels, we must produce leaders who are decisive, innovative, adaptive, culturally astute, strategic and creative thinkers, and effective communicators—character traits of the 21st Century leader known as the Pentathlete. In addition to being experts in the art and science of the profession of arms and demonstrating character and integrity coupled with an ethical ethos in everything they do, Pentathlete leaders must be astute at building teams, boldly confronting uncertainty, and solving complex problems while engendering loyalty and

trust. Above all, our future senior leaders must be strategic and creative thinkers dedicated to lifelong learning. Only through that commitment will we develop leaders thoroughly competent in leading, managing, and changing large organizations as well as skilled in governance, statesmanship, and diplomacy.

FUTURE FORCE

The rigor of the training environment will need to equal or exceed the operational environment. Modernization efforts require transformation of initial military training, civilian training, Leader Development for military and civilians, and Professional Military Education. Additionally, we need to embed training capabilities into our operational platforms and resource the institution to meet requirements of the operational Army. Live-Virtual-Constructive training capabilities must be integrated and linked to Joint training capabilities. At end state, the Army will employ training capabilities with seamless links between training institutions, home station, Combat Training Centers, and deployed locations.

By achieving these capabilities, the Army will be able to train, alert, deploy, employ, and execute to meet complex national security requirements. The difference between operations today and Future Force operations is a requirement for greatly enhanced doctrine, training, and leader development capabilities, enabled by improved processes and an Integrated Training Support System that supports Soldiers and leaders whenever and wherever required.

FUTURE FORCE CONCEPTS AND CAPABILITIES

Training and developing the Future Force Soldier and leader is derived from an assessment of Joint and Army concepts, required capabilities and needs, and DOTMLPF solutions. From these concepts will follow:

- Development of technologically enabled, virtual knowledge repositories lessons learned, doctrine, Tactics, Techniques and Procedures, training publications
- Embedding of training tools into operational and institutional system of systems to make training/training support available on demand
- Integration of Army Live-Virtual-Constructive training capabilities with links to Joint training capabilities
- Linking of training environments and domains through the infosphere and the Global Information Grid
- Transforming Accessions, IET, and Professional Military Education

Additional future force training requirements to support the Army Campaign Plan, Army Modular Force, and Transformation are:

- Establishment of "schoolhouses without walls" that contain Lifelong Learning Centers, integrating knowledge resource centers, data repositories, and 24/7 reach forward and back capabilities
- Linkage of institutional, operational, and self-development training domains via operational communications systems to establish seamless interoperability between and among Live-Virtual-Constructive training environments
- Development training products that can be transported via tactical communication systems
- Development of technically standard compliant training products that can be developed, sustained, and delivered through distributed media, fixed, and wireless communication systems
- Establishment of automated linkages with training developers and engines of change such as the technical information community to reduce information decay and rapidly speed relevant training updates to the Army
- Integration of training into the Mission Planning and Rehearsal System and Operational Battle Command System

- Establishment of dL capabilities with standardized and sustainable on-board training products for delivery to manned systems world-wide

Embedded Training is a functional capability built into or added onto operational equipment and systems. The goal is to provide a multi-echelon Live-Virtual-Constructive training capability to support individual, crew, leader, battle staff, and distributed collective training using designed-in operational interfaces. Through ET and deployable training infrastructure, forces will be able to train globally and manage and assess readiness regardless of location or duration of deployed operations. It will function through a Joint architecture using common standards within integrated LVC training systems. Embedded Training supports training, assessment and control of exercises on the operational equipment with auxiliary equipment and data sources as necessary.

Embedded Training in Army acquisition programs must be designed and fielded to integrate immediately into the Global Joint Training Infrastructure, which includes architectural standards, range instrumentation, simulators and simulations, and communications to support distributed live, virtual, and constructive connectivity. Deployed forces must be able to sustain readiness through training and rehearsal, regardless of location or length of deployment. Embedded Training capabilities will be consistent with Joint operational and training architectures, and will be achieved using operational Command and Control systems.

The Army's Distributed Learning Program is introducing a task-based product initiative that will significantly impact Army training in support of transformation and ARFORGEN. With task-based training, the program provides Warfighters the critical individual combat tasks that support the unit's Mission Essential Task List, new operational tasks, Professional Military Education, and job qualification requirements. The entire process of training analysis, design, development, implementation and evaluation will be achieved through use of a family of automated information systems managed by TRADOC Program Integration Office for the Army Training Information System. ATIS is a system of systems approach that provides service-oriented architecture for use by the entire Army training community.

TRAINING MODERNIZATION

Training must ensure Soldiers and leaders can maintain the high level of readiness required. Training modernization provides commanders the "enablers" required by the Army's Training Strategy and ARFORGEN. Training modernization is synchronized with the *Army Campaign Plan* to ensure critical training enablers support transformation as the Army continues to fight.

TRAINING SUPPORT SYSTEM

Training Support System describes how training enabler resources support Army Training System, the Combined Arms Training Strategy, and execution of training in both the Active and Reserve Component. It also describes how enablers support Soldier training in TRADOC schools. More formally, TSS has been described as a System-of-Systems that provides networked, integrated, interoperable training support capabilities required to enable operationally relevant JIIM training for Soldiers and units. TSS is linked to execution of training by providing training products and training services to meet the challenges of training an Army undergoing transformation.

Training Support System Products are those tangible, enabling training capabilities that directly support Soldier, leader, and unit collective training at home station, Combat Trainging Centers, and while deployed; as well as the enablers that support Soldier training in the institutions.

Training Support System Services support installation and unit training management and support structure associated with delivery, operations, and maintenance of TSS products wherever training is conducted. It includes

manpower and training support operations to conduct range operations and maintain training areas; training managers, operators, and technicians to support operations of simulation and simulator facilities; TSCs and contract logistic support to sustain fielded training products; and instructors/operators for fielded TADSS.

Training Support System Programs. The Training Support System is managed through four major programs, each of which provides development and delivery of training products and services to installations and units in the training domains of operational, institutional, and self developmental. These programs are:

1. Sustainable Range Program (SRP),
2. Battle Command Training Support Program (BCTSP),
3. Combat Training Center Modernization Program (CTCMP), and
4. Soldier Training Support Program (STSP).

1. SUSTAINABLE RANGE PROGRAM (SRP)

Live training is the cornerstone of operational success. The Army's Range and Training Land Strategy under Sustainable Range Program establishes priorities for investing in the transformation of ranges and training land to support the COE and Future Force. Key range transformation initiatives are based on doctrine, force modernization, force structure, and weapons gunnery strategy. To maintain the capability to execute weapons gunnery, individual and crew qualification, and live-fire collective training, the Army must evolve range standards to reflect weapons platform capabilities. Range modernization integrates mission support for these factors, together with environmental stewardship and economic feasibility to determine priorities. Range modernization also cross-walks these factors with land availability and land acquisition through the Integrated Training Area Management Program. The Army is modernizing ranges to provide capacity for increased training requirements supporting Army Modular Force and ARFORGEN, enabling more operator, unit, and

leader-battlestaff training on new digital systems through the addition of full spectrum training capabilities.

Range and Training Land Program allows the Army to plan, execute, and sustain the Army Master Range Plan. The range modernization component of RTLP is based on AMRP-driven analysis of doctrine, force structure, force modernization, and weapons gunnery requirements. Range modernization integrates mission support for maintenance, construction, use, environmental stewardship, and economic feasibility. Range modernization cross-walks these factors with land availability and land acquisition through ITAM. This is a complex effort involving Army G-3, Army Commands, and installation staffs, several database tools, and systems that provide analytical support.

The Range Facility Management Support System provides an inventory of range assets and information to determine range use. The Army Range Requirements Model provides an automated capability to calculate doctrinal requirements and determine approximate live training throughput capacities and requirements for Army installations.

Installation Status Report. Part I allows installations to report on range and training land conditions. To develop the Range Complex Master Plan, installation staff use ISR, together with doctrinal analysis based on *Training Circular (TC) 25-1, Integrated Training Area Management; TC 25-8, Training Ranges;* and *TC 25-8-1, Army SOF Training Ranges*. RCMP allows installations to plan for all aspects of ranges and training lands. Both RTLP

and ITAM requirements are collated by the RTLP/ITAM program managers at Army Command level and presented for validation during the SRP Program Management Review. Once incorporated into the Army Master Range Program, range projects are planned through HQDA Range Modernization Technical Team, which validates doctrinal requirements, costs, and mitigation planning factors presented by installation staffs. The Range Modernization Configuration Control Board provides the HQDA Tech Team and RTLP community with engineering and technical design standards for implementation based on doctrinal requirements outlined in TC 25-8.

Another component of RTLP, range operations consist of range officer professional development, range control and safety, standard operating procedures at the installation level, scheduling and allocation, training budget calculations, range security, and munitions management. Systems in place or under development to support range operations are the Range Managers' Tool Kit, Range Facility Management Support System, and systems/tools available from ITAM.

The following are the major SRP modernization programs currently programmed, planned and/or being developed. These programs (with exception of ADA Targets) are funded through Other Procurement Army under the category of Research, Development, and Acquisition.

Army Targetry Systems provide non-instrumented live-fire ranges incorporating stationary and moving infantry/armor targets to meet both individual and crew qualification and collective training for weapons gunnery incorporating realistic threat target scenarios under simulated battlefield conditions. Army Tank and Automotive Command, headquartered at Rock Island, Ill., is the materiel provider for the ATS Program.

The Air Defense Artillery Target Program ensure unit and crew readiness by providing targets and ancillary devices for mandatory live-fire crew weapon system qualification and training events. The materiel provider for ADA Targets is Program Manager for Instrumentation Targets and Threat Simulators at Redstone Arsenal, Ala. ADA restructure has created modular ADA units for which units/crews must be trained, qualified, and certified on their weapon systems and available to support BCTs requiring ADA augmentation. The ADA Target Program funds aerial targetry/scoring hardware and support services to train more than 372 Avenger and MANPAD Stinger crews for qualification and live-fire training prior to deployment, upon entering reset, and to support homeland defense in the Nation Capital Region.

Digital Range Training System includes the Digital Multi-purpose Training Range, Digital Multi-purpose Range Complex, Battle Area Complex, and Digital Air Ground Integration Range. The Instrumented Ranges Program provide new and modern ranges capable of training, evaluating and stressing Soldiers and equipment with a realistic, train-as-you-fight environment. These training systems will replace obsolete training methods and equipment to stimulate new weapon systems, and provide enhanced training data collection and After Action Review capabilities. DRTS ranges are part of the Live Training Transformation-Family of Training Systems and have been programmed for those major installations with Heavy Brigade Combat Teams. Fielding strategy is six DMPRCs, four DMTRs, three BAXs, and five DAGIRS.

Integrated Military Operations on Urban Terrain Training System provides training range instrumentation in support of the Urban Operations suite of ranges as established by *TC 90-1, Training for Urban Operations*. Instrumentation of the Urban Assault Course, "Shoothouse," and Combined Arms Collective Training Facility leverages existing technologies to comply with Common Training Instrumentation Architecture. IMOUTTS provides technology integration for home station, deployed, and Combat Training Centers into a single effort, ensuring the capability to train units in a complex terrain environment. The program will leverage existing Military Operations on Urban Terrain Training System instrumentation systems and technologies to ensure follow on systems are in accordance with the CTIA. The basis of issue and fielding strategy envisions 33 CACTFs, 40 Urban Assault Courses, and 37 Live-fire Shoothouses. BRAC projects to be executed in FY07 will be at Fort Bliss, Texas (two Live-fire Shoothouses and the Urban Assault Course).

Aerial Weapons Scoring System is an integrated group of computer-controlled sensors used to score live-fire helicopter gunnery. It provides near real-time objective scoring results for attack helicopters firing .50-caliber, 7.62-, 20- and 30-mm projectiles, and 2.75-inch training rockets. AWSS can objectively score simulated Hellfire missile engagements. Block II improvements will enable AWSS to provide scoring for Digital Air Ground Integration Range. Six new systems have now been fielded, four of which are in CONUS, one in Germany, and one in Korea. AWSS currently is undergoing a Block II program upgrade scheduled for FY08 delivery, and will include a data link upgrade and integration of the Smart Onboard Data Interface Module with the AWSS Control Station.

Deployable Range Packages provide deploying units the capability to conduct live-fire training in theater, and can be used as Training Augmentation Range Packages for Army Commands, the Installation Management Command and Theaters.

2. BATTLE COMMAND TRAINING SUPPORT PROGRAM

Battle Command Training Support Program provides virtual and constructive training support systems required by Army Training System. Virtual simulators support graduated training strategies by providing commanders tools to practice collective tasks prior to conducting live training. Constructive simulations give commanders the capability to train their leaders and battle staffs on Mission Essential Taks List through simulation. Virtual simulators and constructive simulations have been used extensively by leaders to conduct mission rehearsal exercises to prepare for deployment after unit operational equipment has been shipped.

The Army is expanding BCTSP to meet training needs from brigade to corps, including multi-functional support brigades and select functional support brigades (FSB). The Army's gateway to Joint, Service, and combatant commander Live-Virtual-Constructive training, LVS-Integrated Architecture is the Army's integrating modeling and simulation architecture for creating its integrated training environment, and is required for LVC training systems to interoperate within an integrated LVC training environment. By enabling distributed LVC interoperability and simulating and stimulating Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance systems, commanders, Soldiers, and units can train as they fight using operational equipment and systems. This environment provides common protocols and interfaces to link disparate Army

Live instrumentation systems and simulators, enabling a Battle Command Training Capability at home station.

Fixed Tactical Internet is a permanently installed network of Enhanced Position Location Reporting System radio sets with an Network Manager enabling digital communications across the Army's Tactical Internet. FTI provides the primary means for on-demand digital communications for modular units in support of testing, training, maintenance and experimentation at brigade and below.

Fixed Tactical Internet reduces significantly deployment of signal company assets when units go out to train—especially important as OPTEMPO remains high. FTI has been fielded to installations equipped with Stryker, M1A2, and M2A3 vehicles, as well as to support Army Evaluation Task Force test and evaluation. FTI does not provide a capability to train with a Blue Force Tracking or other non-EPLRS-based communications systems. FTI will be completed in FY07 with the installation of the system at Fort Bliss, Texas.

Constructive Simulation uses computer models and simulations to exercise command and staff functions from platoon through Joint Task Force. CS permits multiple echelons of command and staff to execute their normal warfighting tasks in an extensive exercise without the resource constraints of large bodies of troops, and is used extensively by deploying units in conduct of Mission Rehearsal Exercise to provide versatile, cost-effective training environment that trains leaders to visualize battle space and make tactical decisions in a time-constrained, digitized environment. It also provides the "wraparound" for LVC-integrated events, extending battle space to provide more realistic scenarios.

Joint Land Component Constructive Training Capability, formerly Army Constructive Training Federation, consists of current and projected simulations and supporting applications and HW to address training needs of the Joint Force Land Component Commander and Army Title X requirements across the range of military operations. JLCCTC is a federation of simulations/models and associated software required to compose, operate, and maintain a synthetic operational environment to support collective command and staff training.

Constructive models in the JLCCTC include: Tactical Simulation, Combat Service Support Training Simulation System, Joint Conflict and Tactical Simulation, Digital Battle Staff Sustainment Trainer, Warfighter's Simulation, Joint Nonkinetic Effects Model, the Joint Deployment Logistics Model, and One Semi-Automated Forces.

Joint Land Component Constructive Training Capability provides critical support/enablers for collective digital Battle Command training and Mission Rehearsal, providing only viable Common Operating Environment (short of actual insertion into theater) for training. JLCCTC also supports modular force conversion and training transformation by providing realistic modeling of new brigade structures and Tactics, Techniques and Procedures to properly stimulate training, and by providing composable training simulation architectures to maximize efficiency and cost effectiveness. FY07 major improvements will focus on Improvised Explosive Devices—offensive and defensive operations; non-kinetic effects (behaviors of ethnic groups, government and Non-Government Organizations, sides and factions); and expanded interoperability with the Joint Deployment and Logistics Model. In addition, MRF will incorporate expanded interoperability with the Warfighter's Simulation.

Intelligence Electronic Warfare Tactical Proficiency Trainer is a constructive training simulation capability being fielded to the Army to support Military Intelligence units at corps and below, thereby enabling realistic battle command training through simulation of Joint and Army intelligence capabilities and stimulating the MI collection system with scenarios that replicate battlefield situations. This puts MI Soldiers in the training loop using operational equipment and providing required reports and data to combat commanders

and their staffs. Of eight systems, three have been fielded and, in FY07, two additional sites are scheduled for fielding.

Common Battle Command Simulation Equipment is commercial-off-the-shelf Hardware, operating system and data base software, workstations and servers, networks, and other peripherals used to run JLCCTC Software. The program provides fielding of technical control suites and network to host the JLCCTC ERF and MRF software, and includes computers that provide user interface within Battle Command Training Center workstations. The Common Battle Command Simulation Equipment technical control suite requires server and COTS software upgrades and additions to support each new version of JLCCTC. CBCSE workstations require replacement every three to five years to maintain relevancy. Currently four sites have less than 90 percent of authorizations, with two of those sites are projected to be filled in FY07. All sites will be at 90 percent or better by FY12. Work station refresh is anticipated to commence in FY08.

One Semi-Automated Forces is a tailorable and composable next generation Computer Generated Force, representing a full range of operations, systems and control processes up to brigade level, having variable levels of fidelity; and supporting all model and simulation domain applications in both man-in-the-loop and closed-loop modes. It will represent the physical environment, including urban operations, and its effect on simulated activities and behaviors. OneSAF will be the future entity-level brigade and below constructive simulation, will be a component of the JLCCTC, and be used in battle labs and research, development and engineering centers.

Battle Command Training Center - Equipment Support provides the network and equipment that supports integration of C4ISR system simulations, expands communications from the BCTC to units not hard-wired to training facilities, and significantly improves command and staff ability to build and maintain a digital Common Operational Picture. BCTC-ES is the enabling link in the BCTC that supports stimulation of Army Battle Command System through JLCCTC, and consists of network gear, BattleSight, radio-to-wire communications interfaces, virtual Unmanned Aerial Systems data and video feeds and Sim-to-Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance systems integration. Currently only the five SBCT sites are fielded the full complement of BCTC-ES enhancing capabilities. In FY07, BCTC-ES can only deliver BattleSight to three to four select sites due to limited funding. However, enhanced network and Sim-to-C4ISR integration will be delivered by the CBCSE program to 14 sites as a part of their JLCCTC update.

In FY08-13 ten new MCA BCTC sites are in the Program Objective Memorandum to receive the full complement of BCTC-ES capabilities, while three others will receive a lesser required slice.

Battle Command Training Center - Facilities provide the capability to conduct digital battle staff training for both Active and Reserve Component. BCTCs directly support execution of day-to-day operations and exercise support for all leader and battle staff training required by Army Training System, ARFORGEN, HQDA, and Army Command training directives. BCTC-F modernizes current battle simulations centers to increase training capabilities on C4ISR BCSs, maintain digital battlestaff proficiency, and provide Live-Virtual-Constructive—Integrated Architecture connectivity. There are three MILCON facilities that will begin construction in FY07.

BCTCs directly support day-to-day operations and exercise support for all ATS-required training directives, to include ARFORGEN, HQDA, and ACOM. Most Army BCTCs are assigned training roles as "Hub" or "Spoke" within ATS. These roles are defined by each BCTC's training support relationships and responsibilities for Joint Land Component Constructive Training Capability and other LVC training and are described in the JLCCTC Distribution Plan. No AC site is unable to train due to facility shortfalls, but several sites are

at the limits of their capabilities. There will be three new MCA facilities that will began construction in FY07, and ten additional facilities are funded in the FY08-13 POM.

The Army National Guard site at Fort Indiantown Gap, Pennsylvania has been migrated to a Battle Command Training Center and currently is expanding its facilities. It is capable of training but there is some training degradation in the existing facility. Assessments are ongoing for Army National Guard, Army Reserve, TRADOC Schools/Common Operating Environment, as well as a number of ACOMS to determine training requirements for submission in the FY10-15 POM.

Virtual Simulation Training is a part of Battle Command Training Support Program that ensures a realistic, immersive training environment involving real people operating simulated systems using Man in the Loop simulations or Embedded Training capabilities. In the virtual environment, simulators and simulations operating on virtual geospecific or non-geospecific terrain replace real systems and can be linked with components of LVC-IA to provide a training environment that replicates the real thing. Virtual Simulation Training provides commanders with "walk" level training, sustainment training, gated training events, Leader Development, and mission-rehearsal capabilities. Virtual training also allows Soldiers to perform tasks too dangerous for live environments, such as calling for artillery fires on or near an occupied friendly position. It also facilitates retraining specific tasks until training objectives are met.

Synthetic Environment Core is the Army's virtual component of LVC-IA, integrating common components of virtual simulations and linking the virtual environment to the LVC TE. Key to the Army's training transformation plan and a complementary training system for the FCS, SE Core will develop new software and integrate existing hardware and software products to create the Army's common virtual environment. This will be done by linking system and non-system virtual simulations into a fully integrated training virtual capability. SE Core requirements include virtual simulation architecture, Objective One Semi-Automated Forces integration as the common SAF, master terrain database production facilities; and common virtual environment, which allows the to Army execute combined arms and Joint training and mission planning and rehearsals at home station and at deployed locations.

The SE Core program is divided into two major efforts: Architecture and Integration development and the Database Virtual Environment Development. Currently, both efforts are in system demonstration of the acquisition life-cycle framework and do not require a Milestone C decision. The A&I effort has completed two major milestones: integrated baseline and Preliminary Design Reviews, and will have completed its critical design review in February 2007, which will culminate at the user acceptance test in September.

The Database Virtual Environment Development effort has completed three major milestones: Preliminary Design Review, Critical Design Review, and an integrated baseline reviews. This effort entered limited rate initial production and delivered an initial Fort Bliss, Texas terrain database in January 2007. Full-rate production of runtime terrain databases will be achieved upon completion of the government acceptance test in October.

Close Combat Tactical Trainer is the ground maneuver component of the Combined Arms Tactical Trainer family of simulators, and is a system of computer-driven combat simulators that provide a realistic virtual environment in which units train

on and successfully accomplish their collective missions. Units maneuver in high-fidelity manned modules replicating actual combat vehicles. These simulators are connected by a local area network. Manned modules in CCTT replicate the vehicles and weapon systems of combined arms battalions, armored reconnaissance battalions, and armored cavalry squadrons.

Since its fielding, requirements for training and CCTT have grown. New requirements include training in mounted maneuver tasks in wheeled vehicles, dismounted Soldier tasks, and collective gunnery training. The CCTT program's Reconfigurable Vehicle Simulator (RVS), Reconfigurable Vehicle Tactical Trainer (RVTT), and Dismounted Soldier manned module replicate activities for combat, Combat Support, and Combat Service Support elements at squad- and platoon-level. They also provide the ability to train Brigade Combat Team reconnaissance, engineer, and dismounted elements.

Close Combat Tactical Trainer components provide commanders a highly tailorable, deployable, full-dimensional, collective combined arms virtual training and mission rehearsal system with a robust exercise development subsystem with AAR capability. CCTT is designed primarily for installation training facilities and supports virtual training requirements. It also meets the requirement for a home-station trainer as reflected in CATS and supports the Reset/Train-Ready-Available ARFORGEN process enabling BCT training readiness.

The Close Combat Tactical Trainer TRD is being rewritten as a Capabilities Production Document that will include reconfigurable wheeled vehicle simulators and dismounted Soldier trainer requirements in a single document. There are currently eight CCTT fixed sites at Active Component locations, one fielded RVS developmental unit, 12 Modular-CCTT (M-CCTT) platoon sets in six states for Reserve Component use, and four M-CCTT platoon sets in Germany. An Reconfigurable Vehicle Simulator is composed of six modules housed in three trailers. The total trailer requirement is 27 – and seven will began fielding in FY07.

Reconfigurable Vehicle Tactical Trailer fielding is scheduled to begin in FY09, based on the FY08-13 POM. Fixed sites will be fielded with RVS, while RVTT will be fielded to locations without a CCTT fixed site. There are 21 RVTT suites required to support the Active Component operational and Information Technology requirements and an additional six RVTTs are needed to support Reserve Component training requirements. When funded, CCTT dismounted Soldier capability will be fielded at CCTT fixed sites and RVTT sites.

Aviation Combined Arms Tactical Trainer is a mobile, transportable, multi-station simulation device that supports unit collective, combined arms training. AVCATT provides six cockpits configurable to any combination of AH-64A or D, OH-58D, UH-60A/L, and CH-47D. Exercise record/playback and simultaneous AAR capability ensures the capture of training lessons learned. AVCATT is Distributive Interactive Simulation compliant and compatible with other SE Core-enabled systems. Interactive exercises help commanders hone unit collective operations skills and rehearse wartime missions.

Aviation Combined Arms Tactical Trainer is amplified in CATS, supporting institutional and organizational training for both Active and Reserve aviators and commanders. Combat Aviation Brigades preparing for deployments to Iraq and Afghanistan have networked geographically separated AVCATT suites, allowing mission rehearsals with actual task organizations for deployment.

Recent fielding changes by the Aviation Implementation Task Force ensure AVCATT is aligned with CAB location and task organization. AVCATT meets requirements for a home-station trainer and, when provided with a compatible local area terrain data base, has the potential to provide virtual capabilities for home station live-

fire gunnery training during advanced tables and combined arms live-fire exercises.

Of 23 suites, ten have been fielded to their planned locations, and five have been contracted for production and began fielding this FY. The remaining eight will be contracted and fielded prior to the end of FY09.

Non-rated Crewmember Trainer is a virtual training system that is reconfigurable (UH-60 and CH-47), self-contained, transportable, and interoperable with AVCATT. It will provide training for helicopter door gunners and other non-rated crew members of cargo and utility helicopters in door gunnery, sling-load operations, crew coordination, and actions on contact in a virtual environment. The prototype, scheduled for 30 April 2007, delivery to Fort Rucker, Ala., will be tested in the U.S. Army Aviation Warfighting Center NCRM Course to determine if full rate production is warranted. Funding for the NCMT prototype was received through a congressional add. If USAAWC provides a positive training assessment for NCMT, the AVCATT Operational Requirements Document under revision will include NCMT as a requirement.

Soldier Combined Arms Tactical Trainer will be designed to support small-unit leader training on critical combat skills, and will be an immersive individual and collective VTS supporting light infantry, Ranger, SOF, and BCT equipped units. S-CATT combines immersive Soldier and leader simulators called "Virtual Warrior" with PC-based reconfigurable vehicle simulators and dismounted Soldier workstations to support dismount training from squad through company, with extensions to battalion-level. S-CATT will replicate the COE and enable training in the full spectrum of operations on complex terrain, as well as more conventional environments.

Soldier CATT is an Army-approved requirement; as of the FY08-13 Battle Effects Simulator POM lock. Lack of support to fund S-CATT over the last 2 POM cycles necessitated a new strategy to fund the Army's dismounted immersive virtual Soldier training capability. TRADOC Program Integration Office Virtual, U.S. Army Infantry School, and Program Executive Office for Simulation, Training, and Instrumentation are now incorporating Soldier CATT's dismounted Soldier requirements into the Close Combat Tactical Trainer Capabilities Production Document as an Additional Performance Attribute, in preparation for the next POM.

Virtual Combat Convoy Trainer provides critical training capability for unit collective training in convoy defense and mounted maneuver operations. VCCT enables training in complex terrain, as well as more conventional environments geo-typical and geo-specific terrain database. VCCT is a mobile, self-contained, immersive virtual simulator that allows Soldiers to participate as part of vehicle crews. They come under attack in a virtual training environment and engage adversaries, honing combat skills using realistic weapons and correct weapons engagement techniques.

There are seven VCCTs funded thru May 2007, with remaining funding requirements identified to the Army Requirements and Resourcing Board. Funding support begins FY08, and efforts are underway now with the Joint IED Defeat Organization training IPT to integrate Counter Radio Controlled IED Electronic Warfare capabilities and functions into the VCCT and reinforce CREW training. Based on current POM 08-13 funding for Reconfigurable Vehicle Simulator and Reconfigurable Vehicle Tactical Trailer, VCCT will remain in use until 2011.

Common Driver Trainer is a virtual reality and motion-based simulator easily reconfigured for multiple vehicle cabs. It uses a collection of terrain, weather, and hostile force models, and will serve as a training gate in driver or equipment operator's initial and sustainment training.

The CDT provides business economies when compared to developing and fielding separate simulators by vehicle type or model. The first version of CDT is the Stryker family of vehicles

variant, scheduled for initial operating capability production in two lots. Lot I comprises nine simulators to be fielded in FY07; lot II follows with five simulators planned for delivery in the last two quarters of FY07.

3. COMBAT TRAINING CENTERS MODERNIZATION PROGRAM

Combat Training Centers Modernization Program consists of Opposing Forces vehicle fleets; Instrumentation, Training Aids, Devices, Simulators, and Simulations; and training facilities supporting the three maneuver CTCs and the Exportable Training Capability. The CTC Modernization Program provides needed capabilities to meet evolving ARFORGEN training requirements, replaces obsolete systems, and standardizes CTC training support capabilities to provide full spectrum training. The CTC Program continues to transform to meet the Modular Force training and Army Force Generation readiness requirements.

The Army's transformation to modular units and application of the ARFORGEN force management process has affected the Combat Training Centers by changing the training audience's structure and organic capabilities, as well as increasing the demand for CTC training with more modular units and a more frequent CTC training strategy. The development of an Exportable Training Capability is required to meet the increased throughput requirements driven by the ARFORGEN process and takes the CTC experience to other venues.

The Combat Training Centers Modernization Program remains a cornerstone of Army training and readiness. The CTCMP describes how it will transition to meet the requirements of the Modular Force and ARFORGEN. The CTC Way Ahead sustains and improves the CTC capability to replicate the ever-changing Contemporary Operating Environment while simultaneously integrating more joint, inter-agency, intergovernmental, and multinational (JIIM) training tasks. However, current funding in CTC modernization prevents the execution of the CTC Modernization Program with many programs recently determined to be unexecutable.

Funding reductions in previous POM cycles have undermined acquisition strategies and delayed fielding of new capabilities to support the current and Future Force requirements. Some of the funding restored in FY12-13 in the FY08-13 POM is not sufficient, by itself, to address the near term modernization, unless additional funding is provided in FY09-11. Funding must be provided in the near term to bridge the gap to the FY12-13 and provide the Maneuver CTC the training enablers required to support Army Transformation.

Common Training Instrumentation Architecture is a component-based architecture that sets common standards, interfaces and protocols within the family of Army Live training systems and with other Live, Virtual and Constructive training systems. CTIA is the foundation architecture for the Army's Live Training Transformation family of training systems product line for training instrumentation and tactical engagement simulation systems that support home station training, deployed and maneuver CTC live-training requirements, and interoperability with other Joint training systems. CTIA's component-based, product-line architecture supports a high-level of component reuse among

live training systems, promotes cost-effective modernization, stove-pipe systems, and supports future force training requirements.

Common Training Instrumentation Architecture is a FCS complimentary system and supports the Army's Campaign Plan and DoD Training Transformation. It has completed the fifth year of development. Several Army live training systems (Digital Ranges, CTC OIS, and Home station Instrumented Training System) are being developed using CTIA. Version 1.5 of the architecture has embedded DoD's Test and Training Enabling Architecture software, allowing CTIA-based live training systems to be interoperable with other TENA-based joint test and training systems.

Combat Training Center Objective Instrumentation System is a major component of the Live Training Transformation and is compliant with CTIA. The CTC OIS replaces the current instrumentation systems at NTC, JRTC and JMRC. It is an integrated system of computer software, hardware, workstations, databases, voice and video recording, production and presentation equipment, interface devices and communication systems. The system is configured to collect, report, store, manage, process and display event data for 2,000 instrumented players with capability to expand to 10,000 instrumented players.

Combat Training Center Objective Instrumentation System will accomplish the following functions: exercise planning; system preparation; exercise management; training performance feedback; and system support. Without CTC OIS, Soldiers and units will not receive high-fidelity cause and effect analysis/After Action Reviews of training at the Maneuver Combat Training Centers.

Current stovepipe instrumentation systems at the MCTCs are obsolete with numerous single points of failures. Moreover, they are not fully and seamlessly interoperable with Joint and Live-Virtual-Constructive training systems. The current strategy is to sustain the current system while continuing a Research, Development, Testing and Evaluation program at a minimum level of funding and refine requirements until the CTC OIS program can be resubmitted for funding in the FY10-15 POM.

Combat Training Center Objective Instrumentation System Life Cycle Management provides RDTE for Life Cycle Management of current instrumentation systems at NTC, JRTC and JMRC until OIS is fielded. The program ensures optimal performance and integrity of the CTC Instrumentation System through a planned Obsolescence Elimination and Technology Refresh Program. Failure to fund jeopardizes operation of CTC Instrumentation Systems until CTC OIS can be fielded. Requirement will be resubmitted for the FY10-15 POM.

CTC Modernization OMA provides funding to support life cycle management of existing program, not covered under the RDA funding. It also provides OMA funding for CTC Modernization Program MCA Projects and Army Battle Command System Software Licensing. Lack of funding impacts the program's ability to provide flexibility in funding non-World-wide Contractor Logistics Support, non-OPTEMPO OMA requirements plus flexibility to provide funding required for MCA projects at MCTCs. Requirement will be resubmitted for the FY10-15 POM.

CTC Live Fire Modernization Program provides for development and acquisition of replacement targets, lifters, and audio-visual-cueing devices on MCTC live fire ranges. It transforms CTC Live

Fire capability from traditional linear maneuver operations to doctrinally correct non-linear and non-contiguous operations. Without this program, units will not be able to perform live fire operations at MCTCs that replicate the current operational environment. Requirement will be resubmitted for the FY10-15 POM.

NTC Military Operations in Urban Terrain MCA and Instrumentation System provides increased capability to conduct full-spectrum operations/ training at the National Training Center. It allows force-on-force urban operations training. It provides facilities and instrumentation that provides automated data collection and feedback for AAR; C2 of the MOUT exercise; and gives Observer Controller/Trainers the ability to monitor the unit's approach and actions. Additional funding is required in FY12-13 to complete the instrumentation effort. Instrumentation requirements will be resubmitted in FY10-15 POM.

Exportable Training Capability Instrumentation System provides a deployable instrumentation package to support the Exportable Training Capability concept. Instrumentation is employed by the ETC OPS GRP and can be used at a Power Projection Platform, Power Generation Platform, or other location as required. The system will support exercise control, data collection, analysis, and feedback in a LVC construct for up to a BCT. Without funding for this effort, the Army's first CONUS based ETC scheduled in FY10 is in jeopardy. This program provides the ITADSS pillar of the Exportable Training Capability. If this capability is not available, units will not receive objective force on force training or feedback for AARs at an ETC event. This has direct impact to the CTC Program being able to fully implement its requirements for the ARFORGEN training and readiness model. Requirement will be resubmitted in FY10-15 POM if funding is not provided before then.

CTC Information Assurance provides for upgrade, replacement, or acquisition of necessary physical and information assurance security measures to meet ongoing and changing requirements for

securing the CTC HICON and instrumentation systems. Includes acquisition and upgrades for filters, firewalls, software patches, and physical security measures to meet DoD and Army security requirements. It will assist in migration to the CTC OIS by mitigating legacy security vulnerabilities of current instrumentation systems at the maneuver CTCs. If not funded, the program will not be able to provide hardware and software systems needed to comply with mandatory regulatory information assurance requirements. Program Managers will resubmit requirement for funding in FY10-15 POM.

C4ISR Acquisition/Integration provides upgrades and/or acquires C4ISR (battle command) systems and components as technology changes occur within existing C4ISR HICON systems and as new systems are fielded to units rotating through the CTCs. This program supports acquisition and integration of new systems into the CTC HICON and OIS capabilities to enable the CTCs to interface with rotational unit C4ISR systems. Without funding, the program will not be able to ensure CTC battle command capabilities are updated as Army and Joint battle command systems evolve. PM will resubmit requirement for funding in FY10-15 POM.

OPFOR/Contemporary Operational Environment Combat Wheeled Vehicle Program provides wheeled vehicles for Opposing Force and Civilians on the Battlefield at maneuver CTCs to replicate Combat/CS/CSS and commercial vehicles encountered on modern battlefields.

It uses a common M1113 HMMWV chassis or other commercial vehicles. These systems reflect changing real-world conditions and provide full-spectrum capability to MCTC Opposing Forces. The current fleet of OPFOR/COE vehicles at the MCTCs is composed of Visually Modified HMMWVs and civilian vehicles procured from DRMO and various civilian sources that are not sustainable over the long term. An integrated program is required to address procurement and sustainment of these vehicles. The addition of these vehicles will better replicate current operational environments and give the MCTCs a representative OPFOR that can operate throughout the full spectrum of combat operations. PM will resubmit requirement for funding in FY10-15 POM.

JRTC MOUT MCA and Instrumentaion Systems upgrades allow JRTC MOUT to meet future world environment and instrumentation requirements. Improvements include instrumentation that provides more discreet and accurate information necessary in a MOUT environment. The JRTC MOUT site has been in place for 15+ years and requires refresh of equipment and technology to remain relevant in the changing COE. Without funding, units will not be able to train as they fight and will not receive accurate training feedback prior actual combat if not funded. PM will resubmit requirement for funding in FY10-15.

NTC Rail Spur will improve training of rotational units (modular BCTs) by allowing the rail head to be included "in the box", thus eliminating the administrative move from the Marine Corps Logistical Base at Yermo to Fort Irwin. Additionally, the force structure of modular BCTs increases required railcars from 200 to 500 which Yermo (USMC Logistics Base) is not capable of handing. The rail spur will improve safety along Fort Irwin Road by reducing overweight commercial HET traffic which increases wear to the existing road network. The rail spur will have lights for 24 hour operations and will meet security standards/ measures. Phase I (design) funded in FY13. The remaining phases will be included in FY10-15 POM.

NTC Land Expansion provides MCA for mitigation and land purchase to support modular BCTs which will require larger areas due to longer engagement ranges, faster speed of maneuver units, coupled with tactical/doctrine changes. The program expands the NTC maneuver area by approximately 300K acres, resulting in more realistic and doctrinal distances for operations in the COE. MCA requirements will be completed in FY08.

OPFOR/COE Vehicle Systems Modernization provides RDTE to develop and test future OPFOR systems required at CTCs. It also upgrades current OPFOR Surrogate Vehicles and other major weapons systems and platforms. This maintains currency and relevancy under the changing COE. If this program is not funded, units participating in MCTC rotations will not face a realistic OPFOR. PM will resubmit requirement for funding in FY10-15.

CTC Tactical Engagement System Acquisition fields One Tactical Engagement System to the CTCs replacing existing laser based Multiple Integrated Laser Engagement Systems. OneTESS provides the OC/T situational awareness on player location and engagement activity. This acquires the newest available TESS for the CTCs. For Soldiers to train as they fight at MCTCs, they must be equipped with engagement simulation equipment that mirrors operational capabilities as closely as possible. PM will resubmit requirement for funding in FY10-15.

CTC Aviation provides RDTE to integrate specific CTC aviation training requirements for the Light Utility Helicopter which will replace UH-1 and OH-58 at MCTCs. LUHs support both Observer Controller/Trainer and Opposing Force aviation missions. Items include tactical secure FM radios, GPS, IR/IR search light, Night Vision Systems, secure OCCS radios, 360 degree FLIR, BFT, VOX, OPFOR recognition both electronically and visually, etc. It also integrates TESS with OPFOR LUHs.

OPFOR aviation provides OPFOR rotary-wing aviation that replicate emerging threats. OC/T aviation provides the OC/Ts with capability to

control the event/exercise and provides an AAR for aviation assets at a maneuver CTC or Joint Air-Ground Center of Excellence rotation. Both OPFOR and OC/T aircraft will be fielded as part of the LUH plan which is scheduled to begin in FY08 time frame. Failure to fund this effort could delay replacement of UH-1H and OH-58C aircraft at CTCs. Program Managers will continue to pursue funding in FY08-09 to meet LUH fielding dates, and if unsuccessful, the requirement for funding will be resubmitted in FY10-15.

JRTC Land Expansion provides MCA for mitigation and land purchase to support modular BCTs which require larger areas due to longer engagement ranges, faster speed of the maneuver units, coupled with tactical/doctrine changes. The program expands JRTC maneuver area by approximately 186K acres, resulting in more realistic and doctrinal distances for operations in the COE. It provides a contiguous training area that connects Fullerton/JRTC and Peason training areas allowing for more realistic and doctrinal distances for operations in the COE. This program is funded in the FY08-13 POM; however, additional funding will be requested in FY10-15 POM to complete the project.

JRTC AAR Theater Complex provides four state-of-the-art theaters where processed data coupled with OC/Ts can present AARs to rotational units. This facility is essential to the entire training process as it allows rotational units to learn from events and activities of their rotation. If not funded, JRTC Operations Group cannot adequately coach, teach, and mentor rotational training units. The current facility is inadequate in space/capability to provide quality AARs to the entire BCT. PM will resubmit funding requirement for FY10-15 POM.

JRTC O/C Operations Facility provides JRTC the capability to co-locate OC/T operations and supports requirements for a third maneuver battalion at JRTC. This project will provide efficient and expedited command and control along with enhanced communications capabilities. If not funded, JRTC OPS GP cannot centrally locate its base operations, which reduces effective Command and Control, information flow, and support of a third maneuver task force. JRTC will continue to expend resources maintaining aging/inefficient World War II buildings. PM will resubmit funding requirement for FY10-15 POM.

4. SOLDIER TRAINING SUPPORT PROGRAMS

Soldier Training Support Programs provide enablers that facilitate CATS-prescribed execution of individual and collective training for units and by Programs of Instruction at Army Schools. It synchronizes requirements and resources necessary for combat and materiel development of these training enablers. It also provides personnel, facilities, capabilities, and operational support for Soldier training, and identifies emerging requirements associated with modularity, transformation, and rebasing.

Medical Simulation Training Centers enhances functional medical skills required to save lives during combat operations. MSTC is a centralized medical training facility located at high-density population installations that provide state-of-the-art LVC training on Combat Medical Advanced Skills Training for medical personnel and Combat Life

Saver training for non-medical personnel. The MSTC is where lessons learned in Operations Iraqi Freedom and Enduring Freedom are taught through both didactic and hands-on tactical and technical medical training. The remaining 12 sites, to include a deployable capability in Afghanistan, are to be fielded FY07, with technical refresh for FY12.

Basic Electronics Maintenance Trainer is a stand-alone, non-system training device that supports critical electronics training for 45 Military Occupational Specialities in all aspects of basic electronics, including theory and hands-on application. BEMTS allows instructors to assign lessons to either a class or individual students and track their progress. Program is fully funded beginning FY08, with fielding beginning with Fort Gordon, Georgia; and Fort Leonard Wood, Missouri., and finish with RC training sites. Funding in the FY 10-15 POM will be required to refresh the approximately procured 830 systems.

Instrumentable Multiple Integrated Laser Engagement Systems provides tactical engagement simulation for direct-fire, force-on-force training using eye-safe laser "bullets." I-MILES program is a modernization that provides a more adaptable and user-friendly capability. Enhancements include discrete player identification for all participants, enhanced audio-visual cueing effects, increased boresight retention and accuracy, event recording and display, increased programmability of weapon characteristics, and an external data port to make it easier to connect and provide event data to live integrated systems.

The I-MILES program consists of five component systems: Individual Weapons Systems; Independent Target System Wireless Independent Target System; Combat Vehicle Systems, Shoulder Launched Munitions; and Controller Devices. The Army's MILES Minimum Essential Requirement is 329,442 devices. Total I-MILES requirement to replace MILES is 217,087 devices. The program is post-milestone C. FY08-13 funding levels require 39 years to complete MILES replacement. System Integration Testing scheduled for early 2007. Contract award anticipated 2QFY07.

Engagement Skills Trainer 2000 uses computer-generated imagery to train and sustain individual marksmanship, squad and team fire distribution and control, and judgmental use of force skills. EST is used at force-generating installations, operational unit home-stations, and at forward-deployed sites. Deploying units also use it to sustain small-unit critical collective skills proficiency when not able to conduct live-fire training. The program will have begun fielding new Escalation of Force scenarios in January 2007.

Laser Marksmanship Training System is an eye-safe, laser-based marksmanship skill proficiency trainer that supports direct-fire weapons from handguns through machine guns. Capabilities include training for basic rifle and pistol marksmanship; and machine-gun, counter-sniper, and tactical training; as well as night-fighting using NVS for all weapons, thermal sights and NBC operations.

The system is inexpensive, portable, and configurable to conform to a variety of training requirements and space limitations. It provides an easily deployable marksmanship trainer which mitigates live-fire limitations and supplements EST 2000 capabilities in support of ARFORGEN and OIF/OEF training requirements. The program

is fielded 30 percent (100 of 333 systems) for the Active Army, with 156 more being fielded in FY07. A $7 million Congressional earmark will facilitate purchase of the remaining 3,705 systems on the Reserve and Guard Distribution Plan in FY07.

Call for Fire Trainer uses simulated military equipment to provide high-fidelity simulated battlefield scenarios for training observed fire tasks to Soldiers, regardless of MOS. CFFT trains Soldiers to call for and adjust indirect fire, and trains forward observers (MOS 13F) on the 19 basic call-for-fire tasks. CFFT also supports Type 2 and 3 Close Air Support training. In stand-alone mode, CFFT is capable of training up to 30 students. CFFT will replace current GUARDFIST system. By FY07 end, a total of 97 systems will be available for training.

Non-rated Crewmember Trainer is a virtual training system that is self contained, reconfigurable (UH-60 and CH-47), and transportable, providing training for helicopter door gunners and NRCM of cargo and utility helicopters. NMCT trains door gunnery skills, sling-load operations, crew coordination, actions on contact, and sectoring, and coordinating. Not presently a formal program, however DAMO-Aviation and U.S. Army Aviation Warfighting Center are developing a strategy to produce a training device within the scope of the Aviation Combined Arms Tactical Trainer program. USAAWC DOS & DOTDS are conducting requisite fidelity analysis in support of critical task development. A congressional earmark provides funding to buy two similar devices in FY07. The initiative did not receive funding in the 08-13 POM, however efforts to affect the 10-15 POM continue.

One Tactical Engagement Simulation System is a family of tactical engagement simulation systems that supports force-on-force and force-on-target training and operational test exercises at brigade and below, in all BOSs, at home station, MCTC, and deployed sites. OneTESS overcomes MILES limitations by supporting training of proper engagement procedures; simulating weapon systems accuracy and effects; and stimulating detectors, sensors, monitors and countermeasures. OneTESS will provide a common training and testing TES capability and will establish TES architecture and standards for live tactical engagement systems. It will be the tactical engagement component for the Family of Live Training Systems, and Common Training Instrumentation Architecture.

FCS will incorporate the OneTESS capability. System demonstration and Limited User's Test are scheduled for FY07 and FY08. Milestone C is scheduled for FY09. The Program is not currently funded for production during FY08-13; production funding must be readdressed during the FY10-15 POM process with priority to field to the CTCs.

Home Station Instrumentation Training System is a part of the LT2-FTS that will provide a deployable instrumented company-level training capability at home station that can be expanded to support battalion training. It provides objective data collection of unit performance in force-on-force, force-on-target, and live-fire training so units can better support and assess brigade reset and ready phase training as part of the ARFORGEN cycle. First fielding of Objective HITS is in FY10.

Joint Fires and Effects Trainer System is an immersive trainer which integrates CFFT to place Forward Observers in a virtual setting that accurately replicates current battlefield COE. JFETS has evolved to a prototype trainer. More than 3,000 officers, NCOs, and Soldiers from the Field Artillery School, operational units, and coalition partners have employed JFETS. It emulates conditions not achievable in the current generation of simulators. The experience is active, as opposed to passive, and is capable of training the Joint fires observer, regardless of Service.

The system manipulates visual and physical space to give the observer the experience of being in and surrounded by a specific environment. JFETS is composed of: the Urban Terrain Module, configured to be a room overlooking a Middle

Eastern city; the Open Terrain Module, configured to represent open desert or other terrain as required; the Fires and Effects Command Module; Close Air Support Trainer consisting of a 300-degree visual perspective; and the AAR room. As common gunnery architecture and OneSAF capabilities spiral, JFETS will be able to connect to training systems across the Services and allow virtual training, both individual and collective.

JFETS is an institutional requirement from the Field Artillery School. It is part of the Call For Fire Trainer CPD, which is awaiting final approval from Army G-3. PEG accepted the requested funding requirement for $14 million OPA, $3 million RDT&E, and $27 million military construction-Army, but did not validate the OPA or RDT&E requirement in the FY 08-13 POM. The program is currently funded through a $3.5 million congressional earmark allocated against a $14 million OPA POM.

TRAINING SUPPORT FOR FCS PROGRAM

The FCS System-of-Systems must be capable of simultaneously supporting operations, mission rehearsals, and training of separate audiences. FCS provides opportunities to fundamentally change Army training. The Army's goal—to train anywhere, anytime—is best achieved by providing Embedded Training capability in all FCS. To that end, ET is the primary option for FCS-equipped BCT training in all training domains—institutional, operational, and self-development, including Army CTCs and JNTC. ET is being developed as an integral part of the FCS manned platform and C4ISR architectures, not as a set of add-on boxes and Software applications. Embedded Live-Virtual-Constructive training is an increment 1 capability and a Key Performance Parameter. KPP #6 requires "…FCS FoS must have embedded individual and collective training capability that supports LVC training environments." ET will be designed in at program start to ensure it is developed in conjunction with other FCS components.